DERWENT-ACC-NO: 2002-704237

DERWENT-WEEK: 200276

TITLE: Method for fabricating capacitor of semiconductor device

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PATENT-ASSIGNEE: HYNIX SEMICONDUCTOR INC[HYNIN]

PRIORITY-DATA: 2000KR-0067706 (November 15, 2000)

PATENT-FAMILY:

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KR 2002037803 A	May 23, 2002	N/A	001	H01L 027/108

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
KR2002037803A	N/A	2000KR-0067706	November 15, 2000

INT-CL (IPC): H01L027/108

ABSTRACTED-PUB-NO: KR2002037803A

BASIC-ABSTRACT:

NOVELTY - A method for fabricating a capacitor of a semiconductor device is provided to guarantee improvement of a step coverage characteristic in depositing barium, strontium and titanium (BST) and forming an upper electrode, by using electrochemical deposit(ECD) Pt to form a BST capacitor.

DETAILED DESCRIPTION - An oxide material and a nitride material(2) are formed on a substrate to insulate the substrate from the capacitor. After a contact hole for a vertical interconnection between the substrate and the capacitor is formed, a doped polycrystalline silicon plug is formed. A plug recess is formed. Ti is deposited on the substrate to reduce contact resistance between the plug and a barrier metal (5). TiSix is formed through a heat treatment process, and the remaining Ti is eliminated. A barrier metal is deposited and planarized. A **seed Pt** layer(6) is deposited on the substrate. An Al2O3 layer and a chemical vapor deposition (CVD) silicon oxide layer are deposited as a dummy oxide layer. The dummy oxide layer is patterned to form a dummy oxide layer pattern. A part of the CVD silicon oxide layer is removed to form a vertical pattern. Pt is plated in the vertical pattern to form a Pt stack. The dummy oxide layer pattern is removed. The **seed Pt** layer is removed to insulate storage nodes from each other. A CVD BST layer(10) is deposited on the substrate at a low temperature and is annealed by a rapid thermal process(RTP) method. An upper electrode(11) is formed and patterned on the CVD BAST layer.

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: METHOD FABRICATE CAPACITOR SEMICONDUCTOR DEVICE

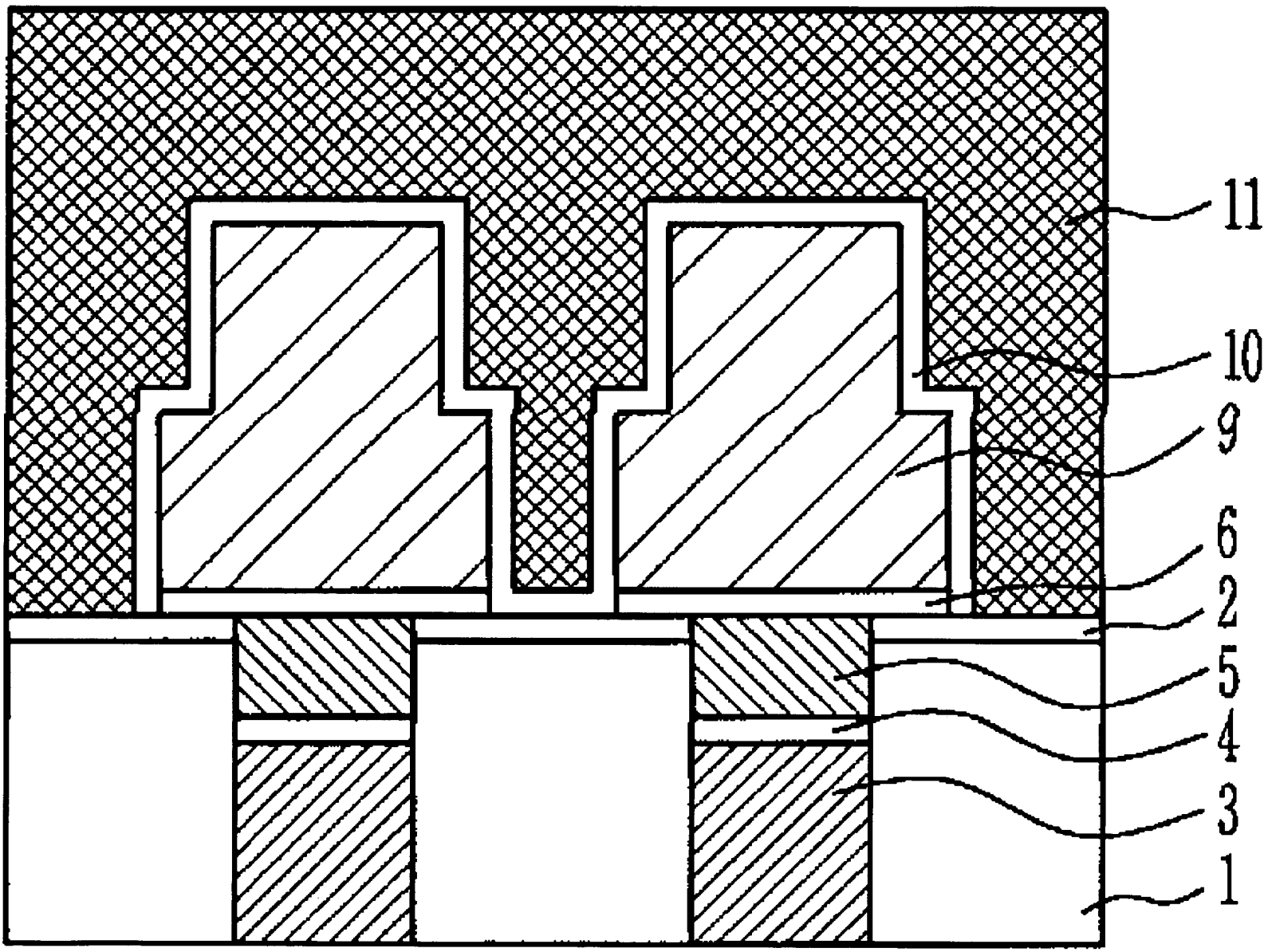
DERWENT-CLASS: L03 U11 U13 U14

CPI-CODES: L04-C10; L04-C11C2; L04-C12A; L04-C13B; L04-C14A;

EPI-CODES: U11-C05B2; U11-C05B7; U11-C05C6; U11-C05G1B; U13-C04B1A; U14-A03B4;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2002-199697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